

# **Proof of the solvability of a system of partial differential equations in the nonlinear theory of shallow shells of Timoshenko type**

Timergaliev S.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

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## **Abstract**

We study the solvability of a system of second-order partial differential equations under given boundary conditions. To prove the existence of a solution of the system, we reduce it to a single nonlinear partial differential equation whose solvability is proved with the use of the contraction mapping principle. © 2012 Pleiades Publishing, Ltd.

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